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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/683,651	01/29/2002	Chung-Ho Chen	CHIP0033USA	6294

27765 7590 12/03/2003

NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER	
NGUYEN, DANNY	
ART UNIT	**PAPER NUMBER**
2836	

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/683,651	CHEN ET AL.	
	Examiner	Art Unit	
	Danny Nguyen	2836	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☒ Claim(s) *4 and 5* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The certified copies of the priority claim are not received.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (APA) in view Bynum (USPN 4,495,536). APA discloses an input protection circuit of handheld electric device for protecting internal circuitry of the device (fig. 1), the internal circuitry (14) having a positive input node (14A) and a ground node (14B), the input protection circuit comprises a power socket (16) having a positive input node (16A) and a ground node (16B) for electrically connecting two output nodes (24A 24B) of a DC power supply (24), the ground node of the socket being electrically connected to the ground node of the internal circuitry (N5), a bipolar transistor (Q1) having an emitter electrically connected to the positive input node of the power socket (16), a collector electrically connected to the positive input of the internal circuitry (14), and a base, an over-voltage protective circuit (20) having two input nodes (20B 20C) and an output node (20A) for controlling on and off of a control transistor (Q2), the two input nodes being electrically connected to the positive input node and the ground node of the power socket (16), the output being connected to the base of the control transistor (Q2), wherein a DC voltage exceeding a threshold inputs from the positive

input and the ground node of the power socket (16), the over-voltage protection circuit (20) will turn off the control transistor (Q2), thereby turning off the transistor (Q1), and when a DC voltage below the threshold inputs, the over-voltage circuit will turn on the transistor (Q2), thereby turning on the transistor (Q1) so as to input the DC voltage to the internal circuitry (see background of invention). APA does not teach a MOS transistor as claimed. Bynum discloses an over-voltage protection circuit (see fig. 1) comprises a MOS transistor (22) being connected to the base of the transistor (20) to turn on of the transistor (20) during a normal operation and turn off the transistor (20) when input voltage exceeding a predetermined value (see col. 2, 3, lines 65-17, and col. 4, lines 27-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the circuit of APA to incorporate the MOS control transistor as taught by Bynum in order to minimize loss of voltage and protect the load from extreme voltage excursion (see col. 2, lines 5-8, and lines 33-36).

3. Claims 2, 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (APA) in view Bynum, and further in view of Fujihira et al (USPN 5,621,601). APA and Bynum disclose all limitations of claim 1 except for having a diode and a high resistance resistor as claimed. Fujihira et al disclose an over-voltage protection circuit (such as shown in fig. 4) comprises a high resistance resistor (rg = 10kohms) and a diode (52) being connected between the base of the transistor (21) and the drain of the control transistor 51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the circuit of APA and Bynum to incorporate the diode and the resistor as taught by Fujihira et al in order to

limit current flowing through the base of transistor and prevent reverse current flowing from the input terminal (see col. 8, lines 2-5).

Allowable Subject Matter

4. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 4 recites the over-voltage protective circuit comprises a first resistor electrically connected between the positive input node of the power socket and the gate of the MOS transistor, a first switch electrically connected between the positive input node of the power socket and the gate of the MOS transistor, an over-voltage sensing circuit electrically connected between the positive input node of the power socket and the ground node for controlling the first switch, the sensing circuit will turn on the first switch so as to turn off the MOS transistor when the DC voltage below the threshold inputs, and turn off the first switch so as approximate a voltage at the gate of the MOS transistor to a voltage at the input terminal of the power socket thereby turning on the MOS transistor.

The references of record do not teach or suggest the aforementioned limitation, nor would it be obvious to modify those references to include such limitation.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (703)-305-5988. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703)-308-3119. The fax phone number for the organization where this application or proceeding is assigned is (703)-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

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November 20, 2003

GREGORY J. TOATLEY, JR.
PRIMARY EXAMINER